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The research in this study is designed to find out if a mechanized task force scout platoon is adequately equipped, manned, and trained to meet the intelligence requirement of the commander and staff. The current mechanized battalion has a platoon consisting of ten high mobility multipurpose wheeled vehicles (HMMWV) and thirty men to conduct its reconnaissance missions. This configuration has been evaluated at the maneuver training centers, tested in combat operations during Desert Storm, and performed missions during military operation other than war around the world. Over this period of time, deficiencies were identified. Despite attempts to rectify these deficiencies, the current scout platoon is still hampered in its ability to effectively provide the reconnaissance and intelligence gathering support for the commander. The scout platoon is challenged to successfully accomplish all of its assigned tasks. As the pace and lethality increase on the modern battlefield these challenges have escalated to a deadly level. This study provides the evidence to confirm that the current scout platoon is not adequately equipped or manned to accomplish its mission. The study will recommend several changes for the scout platoon. The study includes a discussion of the current vehicle and recommendations for a new one.

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EFFECTIVENESS OF CURRENT MECHANIZED SCOUT PLATOON

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILTARY ART AND SCIENCE
General Studies

by

RICHARD G. HOBSON, MAJ, USA
B.S., North Georgia College, Dahlonega, Georgia, 1985

Fort Leavenworth, Kansas
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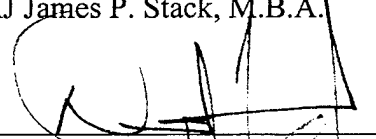2000

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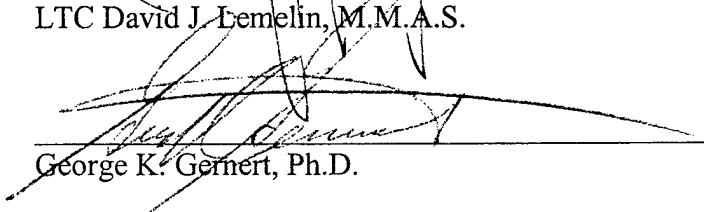
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The opinions and conclusions expressed herein are those the student author and not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

EFFECTIVENESS OF CURRENT MECHANIZED SCOUT PLATOON by MAJ
Richard G. Hobson, USA, 71 pages.

The research in this study is designed to find out if a mechanized task force scout platoon
is adequately equipped, manned, and trained to meet the intelligence requirement of the
commander and staff. The current mechanized battalion has a platoon consisting of ten
high mobility multipurpose wheeled vehicles (HMMWV) and thirty men to conduct its
reconnaissance missions. This configuration has been evaluated at the maneuver training
centers, tested in combat operations during Desert Storm, and performed missions during
military operation other than war around the world. Over this period of time, deficiencies
were identified. Despite attempts to rectify these deficiencies, the current scout platoon
is still hampered in its ability to effectively provide the reconnaissance and intelligence
gathering support for the commander. The scout platoon is challenged to successfully
accomplish all of its assigned tasks. As the pace and lethality increase on the modern
battlefield these challenges have escalated to a deadly level. This study provides the
evidence to confirm that the current scout platoon is not adequately equipped or manned
to accomplish its mission. The study will recommend several changes for the scout
platoon. The study includes a discussion of the current vehicle and recommendations for
a new one.

The scout platoon is essential. Reconnaissance and intelligence will be critical factors on
future battlefields, just as they are today. The scout platoon must be ready to meet the
everchanging environment and fulfill its mission as the "eyes and ears" of the
commander.

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CHAPTER 1

INTRODUCTION

Purpose

The purpose of this paper is to analyze the effectiveness of the current

mechanized infantry battalion scout platoon to conduct its missions and provide the

commander and staff the required intelligence and information. It will assess current

scout platoons to determine if they are under manned and inadequately resourced to

accomplish the minimum essential mission load. That is, to support a mechanized task

force during combat or any of the variations of military operations other than war

(MOOTW).

Background

The battalion scout platoon is the primary reconnaissance and intelligence-

collecting asset for a mechanized infantry battalion. Reconnaissance is one of the most

critical tasks on the battlefield. It is also one of the most difficult tasks to perform. If the

task force scout platoon is unsuccessful in conducting its reconnaissance mission, the task

force's chances of success greatly decrease. A mechanized infantry task force faces a

variety of challenges during its operations within the MOOTW and combat arenas.

Regardless of the challenges and environments, a scout platoon must not fail its mission.

The scout platoon must be able to fulfill its tasking as the "eyes and ears" of the

commander.

A scout platoon has a limited number of men and equipment conducting a wide

array of missions (dismounted and mounted), simultaneously. During task force

operations, the scout platoon can easily be over extended and rendered combat ineffective

within the first few days of the operation. This is a recurring problem at all maneuver

training centers (Dotterer 1993, 1).

<center>Statement of the Problem</center>

Are the reconnaissance and surveillance assets currently assigned to a mechanized

task force scout platoon, adequate to accomplish the intelligence and information

requirements of the commander and his staff?

Scout platoons have routinely failed during reconnaissance operations at many of

the major training centers (Betson 1994, 1). These failures are contributed to numerous

factors. However, the bottom line is that the commander is unable to see the battlefield.

Reconnaissance is critical to the mission success of the task force. If the scout platoon is

unable to successfully conduct reconnaissance operations or is rendered combat

ineffective, the commander and his staff are limited in gaining intelligence necessary for

planning and execution their missions. This failure forces the commander and staff to

rely on other means to collect that critical information. This automatically decreases the

task force's level of success.

The scout platoon faces numerous challenges, because of its limited equipment

and personnel. One challenge is to conduct continuous operations (longer than seventy-

two hours). The number of taskings during an operational exercise far outweighs the

ability of the scout platoon to maintain the operational tempo (OPTEMPO) required by a

battalion. This issue has been documented at the Combat Training Centers (CTCs).

Another challenge faced by the current scout platoon is its ability to survive on

the battlefield. Although this is based largely on equipment and weapons capabilities,

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training is also a major factor. Training must be adapted and refined to maintain pace with the changing battlefields and operational environments.

These challenges, though addressed to some extent throughout the year, grow greater each day. As the lethality of the battlefield increases and the demand for intelligence becomes greater, the scout platoon must be organized and equipped to meet any challenge.

A scout platoon has a limited number of men and equipment doing a wide array of missions (dismounted and mounted), simultaneously. During task force operations, the scout platoon can easily be overextended and rendered combat ineffective within the first few days of the operation (Dotterer 1993, 2).

Reconnaissance is critical to the mission success of the task force. If the scout platoon is unable to successfully conduct reconnaissance operations or is rendered combat ineffective, the commander and his staff are limited in gaining intelligence necessary for planning and executing their missions.

During a fourteen-day operational period, a mechanized task force faces a variety of challenges in combat and during operations other than war (OOTW). The scout platoon plays an important role in all of the missions. They are the eyes and ears of the commander throughout each and every operation. Reconnaissance is critical. The scout platoon must be effective and thorough in conducting its reconnaissance missions.

Significance

The research conducted in this study will determine the organization of reconnaissance and intelligence gathering assets, primarily the battalion scout platoon, needed to successfully provide information for the mechanized battalion commanders and

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his staff. These assets must be the eyes and ears of the commander in any environment. The scout platoon must be able to gain the intelligence while being able to survive on the most fluid battlefield or in the most confusing MOOTW environment.

The research will make it clear why the mechanized battalion does not have the assets necessary to perform the required mission over an extended amount of time. Specifically, why the scout platoon is not equipped, or manned sufficiently to survive on the modern battlefield or to support the wide spectrum of MOOTW missions on the horizon.

The study will provide a recommendation of solutions for the mechanized battalion reconnaissance and intelligence gathering challenges.

Limitations

The research will focus on the reconnaissance and intelligence gathering equipment available to the current mechanized battalion. The research will review the equipment, manning, and vehicles in the scout platoon tables of organization and equipment (TO&E), and those assets made available to the battalion by the brigade and division. The study will examine the deployment of ground surveillance radars, unmanned aerial vehicles, and other technologies currently available and being used by the U.S. military.

Delimitations

The focus of this research will be directly on the scout platoon of a mechanized task force. It will review the development of the scout platoon from 1980 to the present with key emphasis on the manning, equipment, and weapons systems.

This paper assesses the ability of the scout platoon to provide intelligence and information to the commander and staff throughout any combat or MOOTW mission.

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Many reconnaissance operations conducted by scout platoons at the major training centers routinely fail. Research conducted by RAND and observations and reports from the major U.S. army training centers confirms these findings. This paper will look at current TO&Es, tactics and techniques, doctrinal materials, and training and field manual to determine if the current scout platoon structure supports its missions.

Definitions

Definitions that are found throughout the research are in accordance with Field Manual 17-98, *Scout Platoon* (1999), and FM 101-5-1, *Operational Terms and Symbols* (1997). These definitions focus on the missions performed by a mechanized task scout platoon throughout various operations (i.e., combat, MOOTW). Some definitions address acronyms and terms common to the operations of a scout platoon.

Area Reconnaissance. A form of reconnaissance operations that is a directed effort to obtain detailed information concerning the terrain or enemy activity within a prescribed area, such as a town, ridgeline, woods, or other features critical to operations.

Counterreconnaissance. The action taken to counter enemy reconnaissance and surveillance efforts.

Guard. A security operation designed to prevent enemy ground observation of and direct fire against the main body. A guard force reconnoiters, attacks, defends, and delays as necessary to accomplish its mission.

Military Operations Other Than War (MOOTW). Operations that encompass the use of military capabilities across the range of military operations short of war. These military actions can be applied to complement any combination of the other instruments of national power and occur before, during, and after war.

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<u>Mission, Enemy, Terrain, Troops, Time Available, Civilian Considerations</u> (METT-TC). Phrase or acronym used to describe the factors that must be considered during the planning or execution of a tactical operation.

<u>Observation Posts (OP)</u>. A position from which military observations are made or fire directed and adjusted and which possesses appropriate communications.

<u>Reconnaissance</u>. Mission conducted to provide a commander with information concerning the terrain, the enemy, and the effects of weather within an area of operation. Forms of reconnaissance include zone reconnaissance, area reconnaissance, and route reconnaissance.

<u>Route Reconnaisance</u>. A form of reconnaissance focused along a specific line of communications, such as a road, railway, or waterway, to provide new or updated information on route conditions and activities along the route.

<u>Screen</u>. Security operation consisting of a series of OPs and designed to maintain surveillance, provide early warning to the main body, impede and harass the enemy with supporting indirect fires, and destroy enemy recon elements within its capabilities.

<u>Surveillance</u>. Systematic observation of airspace, surface or subsurface areas, places, persons, or things, by visual, aerial, electronic, photographic, or other means.

<u>Zone Reconnaissance</u>. A directed effort to obtain detailed information concerning all routes, obstacles (to include chemical or radiological contamination), terrain, and enemy forces within a zone defined by boundaries. A zone reconnaissance normally is assigned when the enemy situation is vague or when information concerning cross-country traffic ability is desired.

This paper will analyze the effectiveness of the scout platoon's ability to fulfill the intelligence requirements of a mechanized infantry battalion commander and staff. Through the use of current manuals, documentation, after action reviews, and research publications from the Center for Army Lessons Learned, magazines (*Infantry, Armor, and Soldier*), military websites, and the RAND Corporation. The findings provide a thorough investigation of the effectiveness of a current scout platoon in support of a mechanized infantry task force in combat or military operations other than war.

CHAPTER 2

LITERATURE REVIEW

Introduction

The documents and literature that provide the basis for the research and analysis

of the effectiveness of a mechanized scout platoon are discussed in this chapter.

Research material was collected based on relative currency. It focuses on the current

TO&E HMMWV scout platoon that supports a mechanized infantry battalion or task

force.

The following material was collected, researched and used to analyze the thesis

subject: field manuals, student text manuals, maintenance manuals, MMAS theses and

School of Advanced Military Studies monographs, after-action reviews (NTC, CMTC,

and Desert Storm), magazine articles (*Infantry, Armor*), periodicals, and RAND research

reports. Documentation provided on the web by the following: Center for Army Lessons

Learned (CALL), National Training Center (NTC), and the Army Digital Library.

Research materials and literature were categorized into three sections: (1) past

and present mission effectiveness material and literature, (2) equipment, weapons, and

personnel capabilities materials and literature, and (3) current foreign and domestic

equipment and weapons technologies literature.

Mission Effectiveness (Past and Present)

Most of the published materials addressing past and present mission effectiveness

and success referenced the scout platoons and additional intelligence gathering assets'

inability to provide thorough intelligence and successfully execute their mission because

of improper planning. Most references to the mechanized scout platoon come from CTC

publications. These publications address deficiencies in proper planning and deployment techniques. Furthermore, AARs and observations address the chronic failure to take advantage of intelligence gathering assets that are available to the battalion.

The publications from the Combined Arms Research Library (CARL) that addressed reconnaissance covered a wide array of operations including the increasing MOOTW environment. Most publications focus on the ineffectiveness of current scout platoon to accomplish the required missions.

Equipment, Weapons, and Personnel Capabilities

Manuals (TMs, Field Manuals (FMs) provided most of the information on equipment, weapons, and personnel. Manuals were the primary source for current training requirements and doctrine for most of the assets available to a mechanized task force. The new FM 19-98, (1999) *Scout Platoon,* provides the most current doctrine for the mechanized scout platoon.

The CTC observations and articles provided current field and exercise results and effects of equipment and weapons. RAND reports address past performances of scout platoons at the National Training Center (NTC) and provided reports and findings that resulted in the current mechanized task force scout platoon TO&E.

Current Foreign and Domestic Equipment and Weapons Technologies

Periodicals, reference books (i.e., *Janes*) and articles available in magazines and from a wide variety of web sites (i.e., CALL, Army Digital Library) were used as the primary sources for current technologies and equipment. Web sites provided endless source information.

Field Manuals

Doctrinal material was provided through current U.S. Army Field Manuals. These manuals provided a wide array of information on the scout platoons. The information included organization, manning, equipment, weapons, tactics, and doctrine. The manuals provided a baseline from which to start the research.

FM 100-5, *Operations*, provides the basic doctrine and discusses the battlefield framework, which the commander and his staff must operate within and control. The manual discusses the battlefield operating systems, not only in their application to successful accomplishment of mission but also their applications during the military decision making process. This manual stresses the importance of intelligence during planning and execution of military operations.

FM 100-5 provides the principles of war Maneuver, Objective, Offensive, Surprise, Economy of Force, Mass, Unity of Command, Simplicity. These principles are the foundation of doctrine. They apply to our approach to war and military operations other than war. Reconnaissance plays an important part in the effective application of all the principles of war. The commander's ability to adequately apply the principles effectively in order to successfully accomplish the mission is directly proportional to the effectiveness of the reconnaissance information. Without effective reconnaissance the commander will be unable to effectively maneuver his forces to gain the required mass of combat power to seize an advantage over the enemy on the objective.

The battlefield is a fluid environment. A mechanized task force must be able to conduct offensive and defensive operation. During either operation, the task force must

gain positional advantage over the enemy. This requires knowledge of the battlefield, enemy positions, and friendly dispositions.

FM 100-5 provides commanders, staff, and scouts with the basic doctrine concepts to assist in understanding the effective application of intelligence assets of the modern battlefield.

FM 17-98, *Scout Platoon*, discusses the assets, missions, organization, tactics and techniques for the current mechanized task force scout platoon. FM 17-98 is the primary source for current assets and doctrine. It provides information on additional equipment and assets available to a scout platoon from support organizations (i.e., MI battalion, DIVARTY). The manual, approved in 1999, is the most current FM published on scout platoon operations and provides the basis information on which to start the analysis.

FM 17-98 outlines the current reconnaissance assets available to the task force scout platoon. The two most prominent scout platoons for a force are the CFV scout platoon (cavalry units) and the high mobility multipurpose wheeled vehicle (HMMWV) scout platoon (armor and mechanized tasks forces). Both of these platoons consist of an officer and twenty-nine enlisted soldiers. The platoons are organized into a headquarters element and two or four scout sections. The platoon organizes its missions according to the factors of mission, enemy, terrain (and weather), troops, and time available (METT-T).

The mechanized infantry battalion HMMWV scout platoon is equipped with ten M1025/1026 HMMWVs. Each HMMWV has a three-man crew and can dismount one scout. Generally, the 10 X HMMWV scout platoon is organized into one of the following configurations two five-vehicle teams, three three-vehicle teams, or four two-

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vehicle teams. These basic organizations are designed to provide flexibility and can be used as determined by METT-TC. In the 10 X HMMWV platoon configuration, five HMMWVs will carry .50-cal machineguns (maximum effective range of 1,600 meters) and five will carry MK-19 grenade launchers (maximum effective range of 2,212 meters to 1,500 meters). Actual equipment organization varies throughout the Army, from unit to unit.
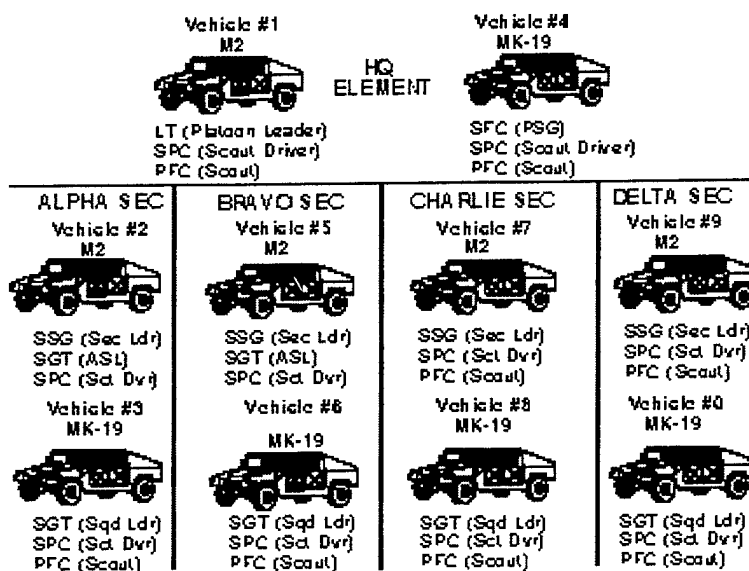
Figure 1. HMMWV Task Organization (FM 17-98 1999, 11-2)

The scouts are equipped with a variety of night-vision devices to optimize their surveillance abilities. They will typically be equipped with: AN/PVS-4, normally used as a rifle sight, with a range of 400 to 600 meters and AN/PVS-7 goggles and binoculars. The longest-range surveillance device they will have is the UAS-11 NODLR, which is a derivative of the TOW thermal sight and has an acquisition range of at least 4,000 meters.

Ground surveillance radars (GSRs) are frequently used to enhance the capabilities of the platoons. A heavy division is allotted twelve GSRs. They have an unclassified range of six to ten kilometers. A mechanized infantry battalion may be assigned one or two GRSs, depending on mission and priority within the brigade or division.

FM 34-4, *Intelligence*, provides more information on assets available to the mechanized task force. FM 34-4 outlines assets and personnel that normally support the maneuver battalion include GSR, REMBASS, field artillery, engineer platoon, air defense artillery platoon, Army aviation, and tactical Air Force. FM 34-4 provides in depth information on most of the external assets available to a mechanized battalion. The following assets were researched for the analysis.

FM 34-4 emphasizes that the commander and the staff must understand the capabilities, limitations, characteristics, and deployment considerations for each asset. Additionally, the scout platoon members must understand and be able to effective employ any equipment or asset made available to them by battalion or brigade. The addition of assets can help the platoon increase its capabilities to provide information to the commander and provide better area coverage and surveillance.

<u>Ground Surveillance Radar</u>

The GSR provides the tactical commander with timely combat information and target acquisition data. The primary capability of GSR is to search, detect, and locate moving objects during limited visibility. The GSR is capable of accurately locating targets for rapid engagement. It provides early warning of enemy movement and assists friendly forces in movement control. The GSRs are organic to the MI battalions, intelligence and surveillance (I&S) companies. The MI Battalion provides GSRs in

direct support (DS) of brigade operations. Generally, a heavy division is allocated three squads of four teams each. Each team contains one PPS-5 radar. The GSR teams that are DS to the brigade can be attached to maneuver battalion, company elements, or scout platoon to support the commander's intent and intelligence requirement.

GSRs are tasked to:

1. Detect enemy movement during limited visibility

2. Monitor NAI

3. Monitor barriers and obstacles to detect enemy breaching

4. Monitor flanks

5. Extend the capabilities of patrols and OP/LPs

6. Vector patrols

7. Monitor possible drop zones or landing zones

GSR has the capability to:

1. Penetrate smoke, haze, fog, light rain and snow, and light foliage

2. Operate in complete darkness

3. Detect moving personnel and equipment

4. Be moved around on the battlefield

5. Provide adjustment of indirect fire

GSR limitations:

1. Emits active radar waves that are subject to enemy detection and electronic countermeasures (ECM)

2. Performance is degraded by heavy rain or snow and dense foliage

3. Line of sight (LOS) operation only

4. Limited mobility of the AN/PPS-5

5. Limited range of the AN/PPS-15

GSRs are used with NODs as complementary surveillance devices. Each device helps to overcome the limitations of the other.

Deployment of the GSR is critical to the effectiveness of the asset. Considerations for employment are general site selection, protection, operating periods, and deployment of redundant systems. Coordination should always be conducted between the battalion and the GSR team leader.

Site Selection

Specific site selection is generally left to the team leader. This takes advantage of the team leader's expertise and knowledge of the GSR. Site considerations are:

1. Protection by combat elements

2. Line of Sight (LOS) between radar and target

3. Communication capability

4. Concealment and cover

5. Protection against ECM

A major consideration in the employment and operation of the GSR is the radar's extreme electronic security risk. The radar's main and side lobes emit enough energy for the enemy to detect and use radio electronic counter measures (ECM). Once detected, its location can provide indicators to the enemy showing the size and disposition of friendly elements. GSRs can be destroyed or jammed.

The flat signature given off by the GSR radar resemble that of the ZSU-23-4, anti-aircraft system. This poses an additional fratricide consideration that must be addressed during planning and execution phases.

The GSRs can be used in tandem with two or more widely dispersed radars having the capability to illuminate the same target area; thus, alternating operation times. The GSR can be used with a night vision device so that coverage can be maintained when the radar is turned off.

The GSR provides the commander with an additional asset that can provide timely intelligence and information of the area of operation.

Field Artillery Assets

Field artillery assets can be integrated into the battalion's reconnaissance and surveillance and counter reconnaissance plans. A field artillery battalion is both a producer and a consumer of combat information. Field artillery battalions in direct support of brigades provide each maneuver battalion headquarters a fire support element (FSE).

The fire support element is headed by a fire support officer (FSO). The FSE assist in planning, directing, and coordinating fire support operations. The FSE also provides a fire support team (FIST) to each maneuver company.

Forward observers (FOs) from each FIST are deployed to platoons (except in armor battalions) and may accompany reconnaissance patrols or help operate OPs. Forward observers watch the battlefield to detect, identify, locate, and laser-designate targets for suppression, neutralization, or destruction. They report both targeting data and combat information to the maneuver battalion FSO and S2. The fire support network

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provides another conduit through which information passes to the tactical operation center and commanders throughout the battlefield.

The fire integration support teams (FIST) and FOs are specially equipped for their mission of providing fire support to the units as well as providing information and intelligence to the commander. The laser range finder provides an accurate distance measurement to a target. Using the ground or vehicular laser locator designator, the FO can determine distance, direction, and vertical angle. The FO can laser designate targets for Army, Navy, and Air Force laser-guided munitions.

The capability of the FIST to provide real-time combat information cannot be overemphasized. The FIST vehicle (FISTV) is capable of accurate target location through the combination of a manual calculation laser range finder and a self-location capability. It has a digital and voice interface with the fire support system and a thermal sight. The FISTV can locate targets out to ten kilometers and designate targets out to five kilometers. However, its electro-optics capability cannot provide acquisition beyond five kilometers.

Maneuver company, troop FISTs, combat observation, and laser teams (COLTs) use the FISTV. The FISTV has only line of sight (LOS) target-acquisition capability. When on the move, it cannot designate targets. The thermal sight's range limitation is within three kilometers of its field of vision.

The FISTV has transitioned from the M113 chassis, which lacked the mobility and armor protection, to the M2 chassis that provides the needed mobility and protection required to maneuver with the mechanized forces. With the continuous increases in technologies, the effectiveness of the FISTV to support its primary mission, fire support

coordination, and provide additional real time intelligence and information to the commanders will increase. These improvements will allow the FISTV to play an even more important role on the battlefield and in the arena of information dominance.

Another configuration that is available on the battlefield to support the mechanized forces is the HMMWV configured FISTV. It has the same capabilities as the tracked version to direct fires and detect enemy. Its protection is provided by its capability to move quickly and effectively hide on the battlefield. HMMWV configured FISTVs are more susceptible to the dirty battlefield environment (i.e., unexploded ordinance, mines) than the M-2 version. However, they are better suited for the rapid mobility requirements of the MOOTW environments.

Engineer Platoon

An engineer company is generally attached in direct support of a mechanized brigade. Usually an engineer platoon supports a battalion. The mission of this engineer platoon is to provide mobility, countermobility, survivability, and general engineering support.

Through the expertise found within the engineer platoon, the S2 is provided valuable detailed information on natural and constructed terrain features. The S3 and the engineer support officer can maintain continuous coordination with each other. This coordination ensures that the available engineer assets are effectively integrated into the battalion R&S and counter-reconnaissance plans. The engineer support officer can provide key information about the terrain without having to send out a reconnaissance patrol. However, in most cases the engineers conducting forward reconnaissance operate

with the scout platoon reconnaissance patrols. This provides the scouts with additional intelligence gathering assets and provides engineers with additional security.

Engineers can provide expert terrain and obstacle analysis. This information is critical to a mechanized battalion, who is reliant on rapid mobility during combat operations. Detailed intelligence on obstacle belts and enemy fortification provided by engineers and scouts, allows the commander to identify weaknesses and effectively maneuver the battalion.

During MOOTW missions, engineers are key to operations. Engineers provide expert assistants to reconnaissance elements and the commander by providing intelligence and information on mines, structural stability of bridges and buildings, and route classifications. Once again the addition of expertise and knowledge brought by the engineers provides the commander a more detail picture of the environment.

Air Defense Artillery Platoon

Short-range air defense elements normally support the maneuver battalion. These elements are made up of Stinger teams and sections. In a mechanized infantry battalion the sections consist of a Bradley Stinger Fighting Vehicle (BSFV) or a HMMWV transported, shoulder fired stringer system.

The air defense artillery (ADA) platoon or section leader functions as the battalion air defense officer. The ADA leader works closely with the battalion S2, S3-air, FSO, and air liaison officer (ALO) to plan and coordinate air defense support.

The ADA leader coordinates closely with the S-2 to pinpoint areas of enemy air and ground activity. The battalion air defense officer can tap into resources that look

throughout the battlefield to determine areas of enemy air activity, thus revealing enemy ground activity.

The forward area alerting radar (FAAR) and target data display set provide air alert warning information to the Stinger teams. This warning includes tentative identification, approximate range, and azimuth of approaching low-altitude aircraft out to twenty kilometers.

The ADA network can provide early warning to the commander and his staff throughout combat and MOOTW operations. Additionally, this asset can provide vital intelligence information prior to operations and allow the commander a better view of the "big picture" prior to committing forces. The picture is critical for the planning phase. In some cases the ADA information network provides deeper intelligence gathering than most organic battalion and brigade assets.

Army Aviation

Aviation units, of various sizes, support maneuver brigade and battalion commanders. They provide a responsive, mobile, and extremely flexible means to find, fix, disrupt, and destroy enemy forces and their supporting command, control, and communications (C3) facilities. Some aviation assets are capable of performing limited reconnaissance missions; however, most will collect information only as part of normal aviation missions.

The commander and S-2 can find out from the army aviation support officer information concerning enemy activity in areas where aviation assets fly missions. TV cameras, located in the target acquisition devise (TADs) sensor systems of the AH-64D can provide near really time images of the objective areas, routes, enemy activity, or any

activity throughout the area of operation. An aerial television camera is also mounted o the sensor systems of the OH-58D. This TV camera provides the same information as that provided by the AH-64 system.

Currently the tapes can only be viewed at the aviation unit because of the equipment required to run the unique camera tapes. Coordination with the aviation units will enable allow the commander or designated personnel to view the film footage either at the aviation TOC or on board the aircraft.

Technology is available on some OH-58Ds and AH-64s that allows real time images to be transferred from aircraft, on the objective, to the commander and staff in the TOC. Camera footage must be viewed at the aviation TOC. This requires coordination between the mechanized battalion, maneuver brigade, and the aviation brigade. This new technology will allow commanders and staff members, at battalion level, to gain detailed, real time intelligence about the enemy.

This current technology is available to the maneuver commanders. But in most cases it is underutilized at the CTCs. Units deployed on MOOTW missions, but primarily at division and brigade levels use the assets more.

The effectiveness of the scout platoon can be enhanced by aviation. Helicopters can insert, or extract OPs or LPs or patrols. They can provide resupply support. Combat aviation companies can provide airlift support for troops and evacuate equipment, casualties, and enemy prisoners of war (EPWs).

The OH-58D is found in the attack helicopter battalion supporting maneuver brigades and battalions. This aircraft performs two functions. It conducts reconnaissance to identify targets for attack aviation, close air support assets, and field artillery units. In

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support of mechanized infantry battalions, it operates as primarily a target acquisition and target attack system. The OH-58D is a primary member of Joint Air Attack Team (JAAT) operations.

The OH-58D has many of the same capabilities as the FISTV. It has a thermal sight; a laser range finder and designator; a self-location capability; and a digital and voice interface with the fire support C3 system. It can locate and designate targets out to ten kilometers. Under less than ideal weather conditions it can only detect and recognize targets to within direct fire ranges.

OH-58Ds can provide information and intelligence to scout platoons during their missions. This information is critical and can provide information that enhances the survivability of the scout elements and assist the platoon leader and scout in accomplishing their missions.

The OH-58D provides:

1. Digital interface with fire support C3 systems

2. Digital interface with Army aviation aircraft equipped with the airborne target handover system (such as the AH-64 Apache)

3. Digital interface with ground based equipment (aerial TV camera systems)

4. Interface with Air Force assets so equipped

Aviation brigade assets are an effective means of gathering intelligence and information on the battlefield. During MOOTW operations, the aviation brigade assets can provide crucial real-time information throughout the area of operation with maximum stand off capabilities and wide area coverage. In the MOOTW environment, aviation

assets provide additional support for the scouts, thus increasing their capabilities, sustainability, and survivability.

The commander and his staff should use this asset whenever it is available. At the battalion task force level, coordination is essential in order to adequately synchronize aviation assets' full intelligence and information gathering abilities. In most cases, an unexploited asset at battalion level.

Tactical Air Force

JAAT is a combination of Army attack and scout helicopters and Air Force close air support (CAS). It normally operates in support of maneuver brigade or battalions. All staff officers participate in planning missions for Air Force support, especially the S2, S3, S3-air, FSO, and ALO. Coordination with the ALO enables the battalion to receive real-time information from these Air Force assets.

The ALO also provides the means to forward immediate tactical air reconnaissance requests up the chain. Air reconnaissance reports, in-flight combat information reports, and air situation reports are available, to the commander and staff, through the ALO. The ALO weighs all available information against information from the CR and the R&S plans. In this way the ALO can confirm or deny the accuracy of each plan.

Mechanized Scout Platoon

The scout platoon is the primary organic intelligence collecting assets for the mechanized task force. A mechanized infantry scout platoon's primary missions are reconnaissance and security in support of the task force. It must be able to perform day and night, mounted or dismounted missions, in any terrain and weather conditions.

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Scouts conduct three types of reconnaissance: route, area, and zone reconnaissance. Scout platoons conduct reconnaissance to provide their commander with information that has tactical value concerning terrain, the enemy, and the effects of weather within an area of operations. Scouts reconnoiter terrain to determine movement and maneuver conditions. When the scouts find the enemy, they determine his strengths and weaknesses. The scout platoon provides the information necessary to allow combined arms forces to maneuver against the enemy, strike him where he is most vulnerable, and apply overwhelming power to defeat him (FM 17-98 1999, 1-1).

Security operations focus on protecting the main body of the task force from enemy observation and surprise attack. Security operations provide the task force with early warning, allowing it to concentrate its combat power at the right place and time to defeat the enemy. There are four types of security missions: screen, guard, cover, and area security. Of the four security missions, a mechanized infantry task force scout platoon can conduct screening and area security missions independently or as part of a larger force.

During a screening mission, the scouts maintain surveillance, provide early warning to the main body, and impede and harass the enemy with artillery fires. Based on the situation a scout may be required to destroy enemy reconnaissance elements in coordination with other combat elements (maneuver forces, indirect fire support, CAS).

The scout platoon plays an important role during counter reconnaissance operations. Counter reconnaissance operations consist of two elements: acquiring and killing. The role for the scout platoon in counter reconnaissance is acquiring enemy reconnaissance assets rather than killing them, although the scout platoon does have

limited killing capability. The primary missions for the scout platoon are to find the infiltrating enemy reconnaissance assets and report their positions to the "killers," the tanks or infantry elements.

In addition to its primary missions, the scout platoon must be able to accomplish the following:

1. Perform quartering party duties

2. Provide traffic control

3. Conduct chemical detection and radiological survey and monitoring operations

4. Conduct limited and demolition work

5. Participate in area security

The scout platoon must provide real time information on enemy activity during offensive and defensive operations. The scout platoon must be able to quickly identify, assess, and report the capabilities and weaknesses of the enemy forces. The scouts must ensure that the commander of the task force is able to see the battlefield.

The scout platoon has limitations and capabilities that must be considered when employing them. The HMMWV scout platoon can reconnoiter up to two routes simultaneously. The scout platoon can reconnoiter a zone three to five kilometers wide. METT-TC conditions may increase or decrease the size of the zone. During screening operations, the scout platoons are limited in their ability to destroy or repel enemy reconnaissance units. The scout platoon is not designed to fight or act as tank killers. It is designed to perform reconnaissance and limited security missions, by using proper movement techniques (mounted and dismounted) and stealth (FM 17-98 1999, 1-1).

The ability to destroy and repel enemy reconnaissance units is a key concern for the survivability of a scout platoon. Most threat mechanized reconnaissance units contain more organic firepower than current HMMWV scout platoon configuration. Within the scout platoon area of operations (AO) most engagements are quick "hip shoot" engagements involving only the vehicles and personnel in contact. Organic firepower capabilities play an important part in the survivability of the scout platoon and its ability to accomplish its mission.

Organic Firepower Of A Mechanized Scout Platoon

The current mechanized scout platoon possesses less organic firepower than most of the threat mechanized forces it is expected to face. Soviet style doctrine, used by many countries, provides for more firepower forward with its recon elements. This firepower is in the form of heavy armor (tanks) and medium armor vehicles (BMPs, Scorpion or Giat configurations).

The HMMWV platoons' major weapons systems consist of the M-2 (.50 Cal.) machine gun and the MK-19 (40mm) automatic grenade launcher. These weapon systems can suppress or destroy most light armored vehicles (BRDM/BTR). The effects of these weapons on medium armored vehicles (BMP/Scorpions) are negligible. The current fielding of the Javelin antitank system will provide scouts with a heavy armor killing capability that is lacking in the current HMMWV configuration.

Stealth is still the primary means of survival for the scout platoon. The use of indirect fire assets and close air support (CAS) are essential to the protection of the scouts. These combat multipliers are very effective, however, in the close fight (i.e., ambushes, chance contact) their effects cannot, in most cases, be brought to bear in time.

Mission Requirements

The HMMWV scout platoon can man up to eight observation posts (OP) for short durations (not greater than seventy-two hours) or up to three OPs for long durations (seventy-two hours or greater). The effectiveness of the scout platoon to conduct reconnaissance and security patrols throughout the task force AO is based on the number and duration of taskings from higher and the ability of the scout platoon leadership to manages rest plans and allocate taskings across the platoon.

Survivability is intertwined with the above consideration. Increases in tasking eventually exhaust personnel and resources. Mistakes increase as scouts become more worn out by the environment, rigors, and stress of continuous operations. This directly impacts the platoon's ability to survive and avoid casualties. The lost of one section can dramatically effect the ability of the scout platoon to accomplish all of its missions during an operational period.

The number of personnel assigned to the current scout platoon is one officer and twenty-nine enlisted personnel. Therefore, the HMMWV scout platoon has a very limited dismounted capability. It must be carefully task organized to conduct dismounted operations. The number of dismounts is a critical limitation of the scout platoon to conduct continuous operations or extended dismounted missions. A patrol requires at least a two-man team. This allows for security of the patrol and provides the manpower to conduct continuous operations (more than seventy-two hours).

The scout platoon operates in sections. At a minimum, each section consists of two HMMWVs. Each HMMWV carries three personnel: a driver, the vehicle commander, and dismount scout. The dismount scout operates as the vehicle gunner

during mounted operation. During missions that require dismounted operations, the dismount scouts from each HMMWV team up and conduct dismounted operations. This has the dismounted and mounted elements operating as two-man teams. While conducting continuous operations, this becomes a key factor in maintaining security and combat effectiveness.

Communications capabilities of a mechanized infantry task force scout platoon are limited. As the primary intelligence gatherer, the scout platoon must stay in communication with the battalion tactical operations center (TOC). This is necessary to keep the platoon informed of the battalion situation as well as the current enemy situation and to ensure information gained by the platoon is transmitted to the battalion in a timely manner.

The distance the scouts can operate internally or away from the main body is restricted to the range of communications, primarily the PRC-119 (SINGARS) configurations. The scout platoon leader is limited in his maneuver of his platoon based upon the range of his communications with his elements and his communications with the task force commander and fire support elements. Retransmission capabilities likewise play an important part in the ability of the scout platoon to conduct its missions.

Currently communication support of the scout platoon from battalion and brigade has ensured effective communications. However, the assignment of an organic retrans system would eliminate the reliance on external support and allow the scout platoon timely and flexible execution during missions in which time is severely limited.

Intelligence Requirements for Military Operations Other Than War

The scout platoon of a mechanized infantry battalion has unique capabilities that make it an important asset during MOOTW missions. The scout platoon may be called upon to perform a variety of missions in a wide range of political, military, and geographical environments in both combat and noncombatant situations. These operations will be decentralized and can require the scout platoon leader to make immediate decisions that may have strategic or operational consequences. The distinction between these roles and situations will not always be clear, presenting unique challenges for the scout platoon (FM 17-98 1999, app. E).

During MOOTW, the scout platoon provides:

1. Real time information on activities within the area of operation

2. Focus on critical commanders information requirements (CCIR)

3. Conduct route recon, area recons and zone recons in support of operations

4. Identify any threats (hostile groups, snipers, environmental) within the area

5. Provide security of the force (screen and surveillance missions)

FM 34-2-1, *Reconnaissance and Surveillance and Intelligence Support to Counter-reconnaissance*, discusses the augmentation and task organizing of reconnaissance and surveillance assets to accomplish the R&S mission. It provides recommendations and techniques for data gathering through different applications of systems in order to support the maneuver battalions.

Very often the scout platoon is the only R&S asset actively collecting, for the battalion, on the battlefield. With the need for real-time intelligence, this usually results in a dead scout platoon, and many unanswered intelligence requirements. To increase the

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effectiveness of the scout platoon capabilities, other R&S assets should be augmented or task organized to the platoon. This is METT-TC dependent and necessary in order to increase the survivability, mission success, and continuity of a scout platoon in continuous operation.

Student Text Manuals

The student texts (STs) provided doctrinal support for the research and quick references on equipment and weapon systems effectiveness. The ST 100-3, *Battle Book*, provided information of intelligence gathering assets found through the battlefield. It provided another source of current information to support the research.

Technical Manuals

The technical manual for the OH-58D (TM 55-1520-248-10) provided the information on camera capabilities and the intelligence capabilities of the helicopter.

Master of Military Art and Science Thesis and the School of Advanced Military Studies Monographs

The MMAS and SAMS papers provided general information and references. All of the papers reviewed focused on brigade and above size units. However, information within some theses and monographs provided insight into the intelligence and reconnaissance doctrine and operations within various operational environments (i.e., combat, MOOTW).

After Action Reviews

After Action Reveiws (AARs) provided a wealth of knowledge on the effective scout platoon during training. The AARs from the major combat training centers provided detailed information on mission effective of the various scout platoons under

diverse conditions. The AARs also provided information and insight on the importance of the scout platoon and its reconnaissance missions in support of the commander and staff.

AARs for reconnaissance operations at battalion level during recent combat operations (Operations Just Cause and Desert Storm) were limited. Comments on the effectiveness of the M-3 CFV as a reconnaissance vehicle was addressed in the 7th Corps AAR.

The M-3 Cavalry Fighting Vehicle was used by some 7th Corps mechanized and armor battalions. The vehicle was evaluated as very effective for operations during Operation Desert Storm.

Interviews, reference battalion level AARs, also provided information about Operations Desert Storm scout platoon operations. The mechanized scout platoon, in both the HMMWV and Bradley configurations, were deployed. Brigades with both configuration opted to use the M-3 CFV platoons for most forward reconnaissance and clearing missions. The HMMWV scouts were used to screen the flanks and rear of units and provide convoy security.

The primary purpose for the various employments of the M-3 and HMMWV scout platoon was based on each element's ability to survive on the battlefield. HMMWVs were more vulnerable on the dirty battlefield (anti-personnel and antitank mines, unexploded ordinances, indirect fires). Furthermore their organic weapons systems effectiveness was degraded during night operations.

This was an important consideration in 7th Corps units, which were conducting continuous offensive operation (deliberate and hasty attacks, movement to contacts). The

lack of thermal night sight capabilities and weapons capable of effectively engaging armored vehicle at night and during limited visibility limited the effectiveness of the HMMWV scout platoon support rapid and continuous maneuver characteristics of Operation Desert Storm.

Military Magazine Articles or Periodicals

The articles found in military magazines provided current lessons learned and recommendation. The articles in both *Infantry* and *Armor* magazines focused on tactics and techniques for various platoon size scout elements. An important addition to the research was in the information on current battalion techniques and procedures in the use of battalion scouts during different mission. This information supported the tasking requirements of the current mechanized scout platoons.

The article "Role of Infantry Units in Stability Operations," published in *Infantry*, defines the subordinate functions for infantry units supporting stability and peacekeeping operations as "reporting and monitoring." While on presence patrols, scout platoons come in contact with local civilians. They also observe items such as the construction of new buildings, availability of goods in stores, propaganda posters, and graffiti. Reporting this information to higher headquarters allows units conducting information operations to know the results of their campaigns. The information can also be used to determine the required force protection level for units in the area (Fosbrink 1998, 2).

It is important for any element to be highly mobile and flexibly in the MOOTW environment. The scout platoon must be able to provide the commander with that type of capability. Often times the tactical situation will require innovative solutions to

unexpected problems. Just as frequently, the scout platoon will be assigned tasks that do not fit doctrinal categories (Fosbrink 1998, 3).

Some examples are: (1) downed-pilot missions, (2) headquarters security, (3) convoy security, (4) guides and convoy route markers, (5) body recovery, and (6) radio relay.

The scout platoon is able to meet most missions in the MOOTW environment. Its employment considerations are guided primarily by its size and ability to conduct continuous operations, based on personnel strengths and training.

The *Army Times* provided information on the current research into the development of a new scout vehicle. It is intended to replace the M-3 (CFV) and the HMMWV in the mechanized and armor battalion scout platoons. The Army research community has identified the need for a new vehicle to support the growing requirements of the mechanized scout platoons and other reconnaissance or cavalry elements.

TRACDOC Pamphlet 71-9, *Requirement Determination*, provides the operational mode summary and mission profile that identified the requirement for a scout or reconnaissance vehicles.

The future scout vehicle will perform primarily stealthy recon and surveillance. The success of their missions will depend upon their ability to detect at long ranges and remain undetected and unengaged (TRACDOC PAM 71-9, 1998, 3). The pamphlet's summary emphasizes that the vehicle must provide a high speed, mobile platform for the scouts. It must allow for extended operational ranges and maintain a small signature on the battlefield. To increase the survivability of the scout platoon effective armor protection and a gun laying and positioning system are required for the vehicle. Despite

the primary mission of the scout platoon, scouts must be able to survive battlefield effects (indirect fires, mines) and effectively defend themselves against limited enemy engagements.

Other requirements for the future scout or recon are a NBC reconnaissance system, mounted water ration heater, and enhanced target acquisition and sensor systems (5 Km or greater IR thermal sight capabilities).

RAND Research Reports

The RAND army research division conducted research projects at the National Training Center to help the U.S. Army capture lessons learned during training exercises. These reports document the detailed research approaches applied to identifying deficiencies in reconnaissance, at task force level, during training exercises at NTC.

The initial reconnaissance study conducted by RAND, *Quantifying the Battlefield*, addressed the problem of battalion tasks forces' inability to develop required intelligence information. The hypotheses are that reconnaissance was not conducted well by BLUFOR units and that reconnaissance had a strong correlation on the success of the unit's mission.

The RAND research found that the task force scouts <u>failed to</u>: (1) avoid enemy contact in seventy-five percent of the battles, (2) identify enemy positions for fifty percent of the missions, (3) accomplish successful route reconnaissance during fifty percent of the missions, (4) dismount for fifty percent of the missions, and (5) conduct timely recon planning during fifty percent of the missions (Goldsmith, 1998, 1996).

This report prompted the recommendation to develop a Scout training course, transition scouts to the HMMWV configuration, and increased emphasis on reconnaissance doctrine during training and at the Combat Training Centers.

The RAND research report, "Battalion Reconnaissance Operations at the National Training Center," supports the findings of the above RAND research with an additional focus on staff training and increased updating of scout doctrine.

Web Site Documentation

The web site documents obtained from the wide variety of source provided current, up to date information and materials. The Center for Army Lessons Learned (CALL) site provided a central source from which to obtain materials from other site (i.e., Army Digital Library, Army Home Page, Armor School web site). The web site documentation assisted in locating the specific information sources and manuals.

Reconnaissance, by Captain Bob Burns, enforces the fact that the commander must be able to see the battlefield not only to successfully plan his operation but also to successfully execute his plan. Reconnaissance is essential. It confirms both the location and activity of the enemy. It provides critical information for all of the task force. It is a key component in military decision-making process. Without effective reconnaissance to confirm or deny the intelligence picture, the plan and the decisions of the commander would be made, largely, on assumptions (Burns 1993, 4).

Reconnaissance provided vignettes that reflect the challenges faced by a task forces commander and his scout platoon. The challenges, to date, continue to remain the same. Some of the challenges identified are:

1. Ability to conduct successful dismounted operations

2. Avoiding direct fire contact with enemy forces

3. Stealth and survivability during recon missions

4. Task organizations and formations

Summary

This review of literature demonstrates that the current mechanized scout platoon is unable to provide the reconnaissance and intelligence support required by the commander and staff. By analyzing the mission requirements and covering current publications, it is apparent that the scout platoon be provided additional equipment and personnel. Most of the research literature determines that the current scout platoons are only fifty percent successful at their mission, however recommendations are vague and do not completely resolve the inadequacies that cause this low mission success rate.

The literature also provides information on assets and new technologies available to the task force to supplement the mechanized scout platoon, and fill some the gaps in the battalion intelligence and information gathering structure. Despite the additional assets, the scout platoon remains the only organic and primary reconnaissance asset for the mechanized task forces.

This study will focus to resolve the internal problems and provide recommendations focused on increasing the scout platoons capabilities to successfully accomplish all of its assigned missions and tasks.

CHAPTER 3

METHODOLOGY

General

This chapter addresses the technique for the analysis of the research question, Are the reconnaissance and surveillance assets currently assigned to a mechanized task force scout platoon, adequate to accomplish the intelligence and information requirements of the commander and his staff? The methodology provided the process for analysis to answer the question and formulate the conclusions and recommendations.

The impact of this question on the current mechanized battalion is that it reduces the commander and staff's ability to effectively maneuver the task force. A well-organized and structured scout platoon allows the commander and his staff to see the battlefield and make sound decisions based on current intelligence.

This chapter provides the discussion of the methodology used to identify the shortcomings in the current mechanized scout platoon's TO&E and ability to support intelligence requirements during continuous operations of the mechanized scout platoon in combat and MOOTW environments.

Requirements Determination Process

Requirements Determination Process (RDP) was known as the Concept-Based Requirements System (CBRS) prior to 1996. This process incorporates guidance in the form of constraints or new materiel capabilities evolving from the research, development, and acquisition (RDA) process. Concepts are derived and the RDP is initiated.

Concepts provide the focus for research and development activities. Concepts also identify critical operational capability requirements. Operational capability requirements (OCRs) are specific statements of capabilities needed to fulfill a vision of future expectations (i.e., warfighting). OCRs help to generate a focus for the research and recommended solutions. Additionally they provide focus for technologies and doctrinal development and follow on research.

Unlike the outmoded Battlefield Development Plan, which was threat-based and focused predominantly upon the Soviet Army as a basis for measuring U.S. Army deficiencies. OCRs, for this research, are capabilities-based and focused on worldwide contingencies. OCRs account for the potential of any number of ambiguous threats to obtain readily available advanced technology to disrupt our Army's operations. Although no peer competitor exists with capabilities equal to the U.S. Armed Forces, selected subsets of advanced technology in otherwise unsophisticated threat forces may challenge U.S. forces as they conduct operations in the wide variety of environments, ranging from combat operations to the full spectrum of military operations other than war.

The RDP analysis methodology is a five-phase process as shown in Figure 2. It consists of the following phases: (1) identifying analysis requirements, (2) assessing capabilities, (3) identifying deficiencies, (4) recommendation of solutions, and (5) determining conclusions. This study will use the CBRS process and operational environment to analyze the mechanized task force reconnaissance and intelligence requirements to assess the capabilities according to mission capabilities.

Once the capabilities are assessed, the deficiencies can be noted.

Recommendations for feasible solutions follow. . . . These solutions will impact elements

of doctrine, organization, and training.

METHODOLOGY

ANALYSIS REQUIREMENTS

- MISSIONS CAPABILITES

- SUCCESS CRITERIA

- HISTORICAL DATA

ASSESS CAPABILITIES

- TRAINING

- PERSONNEL

- ORGANIZATION

NOTE DEFICIENCIES

RECOMMEND SOLUTION

DETERMINE NEEDS

CONCLUSIONS IMPACTING
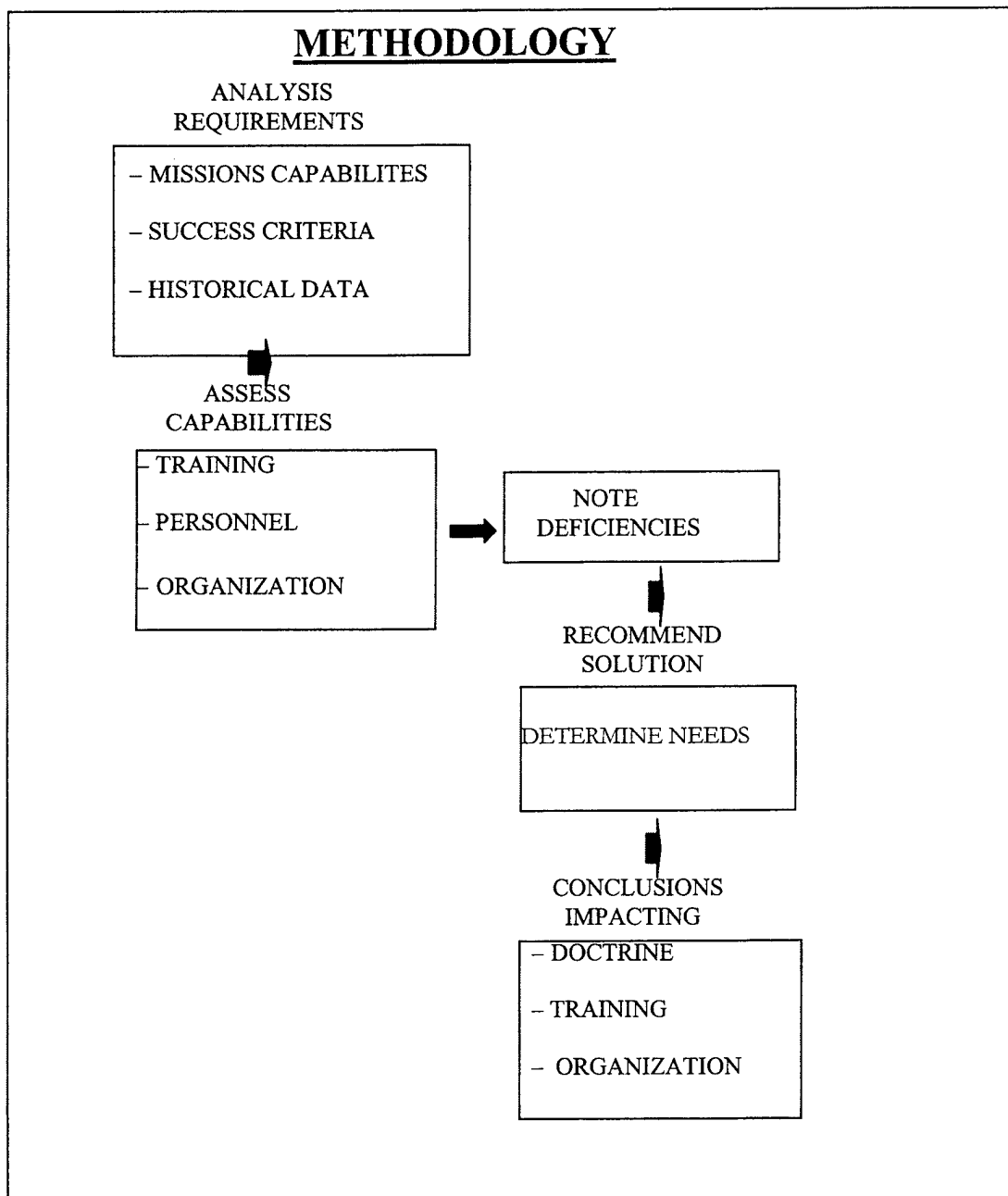
- DOCTRINE

- TRAINING

- ORGANIZATION

Figure 2. Methodology

<u>Operational Capabilities Requirements</u>

What must a mechanized scout platoon be able to do?

A mechanized scout platoon must be the eyes and ears of the battalion commander. It must be able to fulfill the intelligence or information requirement of the commander, his staff, and the battalion.

To determine if the current scout platoon is effective at providing the commander with adequate intelligence and information analysis requirements are established. Analysis requirements provide the components of the OCR. These requirements are the source material for the research. The analysis requirements for this research are mission capabilities, success criteria, and historical data.

Mission Capabilities

A mechanized battalion scout platoon is responsible for conducting reconnaissance and surveillance missions for the battalion. These missions as shown in Figure 3 are essential to the battalion's success in any operational environment.

RECONNAISSANCE	SECURITY	OTHER
AREA	SCREEN	CHEMICAL RECON
ZONE		COUNTER-SNIPER SURVIELLANCE
ROUTE		EXTENDED PATROLLING

Figure 3. Mechanized Battalion Scout Platoon--Missions

The missions for a mechanized scout platoon continue to grow to meet the challenges of the ever-changing operational environment of military operations other than war. With the decrease in combat vehicles and personnel within the line companies of a mechanized battalion, the necessity for effective intelligence and information dominance of the operational area increases.

The Army's transition to the Limited Conversion Divisions (LCD) has increased the importance of the scout platoon missions. With a decrease in force structure and an increase reliance on technology and information dominance of the operational environment, the responsibility and missions for the mechanized scout platoon have increased proportionally.

One rapidly increasing "wildcard" on the battlefield is the advancement in technologies of peer competitors. This challenges the ability of the current mechanized scout platoon to be successful, as well as, survive on the battlefield. Technology over flow makes it difficult for the intelligence community, down to battalion level, to anticipate all the capabilities of the enemy in the initial stages of an operation.

The current scout platoon is responsible for an area up to ten kilometers in width and up to twenty kilometers in-depth. This battlefield responsibility may increase or decrease based on operational environment.

Criteria for Effective Reconnaissance

Criteria for determining effective reconnaissance are survivability, timeliness, accuracy, and sustainability. These criteria make up the essential elements of reconnaissance. The following criteria provides a base for determining if the current

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scout platoon is adequate to support the intelligence requirements for a mechanized task force commander.

Survivability

Survivability is defined as the ability to avoid or overcome incidents that may cause causalities or damage equipment during combat or MOOTW missions. Survivability is key to the effectiveness of the scout platoon. A scout must be able to maintain its operational readiness, manning and equipment, in order to provide the commander with the critical information he needs to make decisive and accurate decisions. Survivability encompasses the ability to apply the combat skills of shoot, move, and communicate necessary to limit the amount of causalities and maintain its operational readiness.

Timeliness

Timeliness is defined as intelligence information that is provided early enough to support planning, influence decisions and execution of operations, and prevent surprise from enemy action. Reports must flow continuously to the commander throughout an operation. Regardless of distance and time, the scouts must provide current information on the enemy situation that will allow the commander and his staff to develop courses of actions, make decisions, plan operations, and maneuver the force.

Accuracy

Accuracy is defined as the ability to provide a balanced, complete, and objective picture of the situation. The scouts must be able to give the commander a complete and thorough picture of the enemy and the operational environment. This picture must satisfy the intelligence priorities of the commander and his staff. It is essential that the

intelligence provided by the scouts correctly identify threat intentions, capabilities, limitations, and dispositions. The scout platoon is a critical tool for the commander to confirm his S-2's situational template and provide him with the big picture of enemy operations and maneuver.

To minimize deception, information must be derived from multiple sources (GSRs, EW, Aviation assets, and others). The task force scout platoon is an organic asset that can provide continuous updates on current threat and situational developments and support the intent of the commander. The scouts' ability to provide continuous accurate information is critical to the commander and greatly enhances the task force's probability of success during any operation.

Table 1. Criteria Decision Matrix

	ROUTE	AREA	ZONE	CHEM	SCRN	CTR SNIPER	EXT PLRT
	RECONNAISSANCE						
TIMELINESS COMBAT MOOTW							
SURVIVABILITY COMBAT MOOTW							
ACCURACY COMBAT MOOTW							
SUSTAINMENT COMBAT MOOTW							

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Sustainment (Operational Duration)

Sustainment is defined as the ability to maintain operational readiness for a definitive amount of time. The scout platoon must be able to conduct its missions for the duration of the task force's operation. The platoon must conduct operations before, during, and after all operations. This is essential to the planning process for the task force, especially in the fluid and fast paced environment of the future operational areas. Effective cognitive performance is central to successful combat operations. The operational readiness rate for this research will be eighty percent or above for one hundred percent of the task force's missions.

Historical Data

The mechanized scout platoon has been studied since the early 1940s. This research uses historical data from the time period of 1980 to present. Historical data provided by RAND studies and observations from all the major training centers initially concluded that the scout platoon was ineffective due to its vehicles and lack of training. The vehicle changes resulted in the current HMMWV configuration. The training deficiency was addressed with the development of the Scout Leaders course at Fort Knox.

However, the performance of the mechanized scout platoon at the training centers continues to fall short of success. This study has identified deficiencies in manning, organization, and training. The analysis will address and recommend solutions for the deficiencies.

With the information obtained during research and the review of studies provided by RAND, the analysis can determine actual capabilities and deficiencies in the current

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mechanized scout platoon. This thesis will analyze the information and determine if the

current mechanized scout platoon is adequate to accomplish the intelligence and

information requirements of the mechanized battalion commander and his staff.

CHAPTER 4

ANALYSIS

Background

The scout platoon has been challenged to provide the commander with essential intelligence information since its inception. Despite several TO&E changes, the requirement for more information and the challenge to survive on an ever-increasing, deadly battlefield, the scout platoon continues to be unable to fulfill the requirements expected of it.

In analyzing the current force structure of the mechanized battalion scout platoon, the CBRS process was used to compare the mission requirement against the platoon's capabilities, its success, and survivability. The results of the analysis identify shortfalls in the structuring, manning, and equipping of the current mechanized scout platoon.

Since the establishment of mechanized and armor forces, developing a scout platoon that can maintain the operational tempo and provide the momentum, area coverage, and security has provided a challenge for force developers. Even today, the Army continues to struggle with its development.

The current force developers have increased the amount of reconnaissance and surveillance elements in the new Force XXI division (4ID). It provides the brigade with a reconnaissance troop that consists of two platoons, six HMMWV per platoon, for brigade reconnaissance. But this force structuring is not Army wide. It is critical to understand that the brigade commander maneuvers the reconnaissance troop and that this troop will support the brigade main effort. The scout platoon remains the battalion commander's primary recon and surveillance asset.

Another force structure is present in the mechanized and armor brigades of the limited conversion divisions (1st Armor and 1st Infantry Divisions). A reconnaissance troop is formed out of the assets within the battalion scout platoons. This means that the equipment has been provided by the battalion scout platoons. This further increases the challenge for the battalion scout platoons, which are reduced to a platoon of six HMMWVs. This conversion strategy also adjusted the force structure of the line companies in each battalion. Each battalion is reorganized from four line companies to three line companies. This reduction in combat power makes effective and continuous reconnaissance and information paramount. The reduction of forces has inhibited the commander's flexibility to react to any surprises. The conversion force is still very lethal and maneuverable. But with fewer forces, the commander is forced to accept risk, primarily in the area of maintaining a reserve.

An oversight in the arena of force and technology development is the technology overflow and increased lethality of threat forces. The reduction in forces, the increased tempo of the battlefield, and lethality (friendly and threat) has rapidly made the current mechanized scout platoon ineffective. It cannot provide the required information and intelligence needed to ensure success of the force on the modern battlefield.

With the increase in technology, the intelligence gathering assets available to the commander has also increased. But coordination is essential to effectively synchronize the non-organic assets. This analysis will address available non-organic assets but will only focus on the effectiveness of the organic assets available to the mechanized scout platoon.

Decision Matrix

The use of the decision matrix to identify the effectiveness of the mechanized battalion scout platoon during each mission according to the four identified criteria for effective reconnaissance provides a graphic depiction of strengths and weaknesses. The criteria are evaluated on a "go" (G), no-go (N), or (M) marginal standard. The evaluation of "go" is established for a standard of seventy-five percent or higher rating for each criterion during each mission.

Criteria Decision Matrix

The evaluations are based on NTC observations and evaluations as well as after action reviews and reports from Operations Just Cause, Desert Storm, and military operation other than war in Bosnia and Kosovo.

An average is calculated for each criterion per each individual mission to determine an over all "go" or "no-go" evaluation for each criteria and each mission. Both are then averaged to determine the over all evaluation and establish a success or failure percentile.

Timeliness

Analysis provides that scout platoons have the capabilities to report and provide the commander and his staff with timely information and intelligence throughout spectrum of missions. Effective training and established operating procedures contribute to effective and timely reporting. The matrix is focused on the missions to be accomplished during one operational period. Advancements in communications have provided the technological bridge that has enhanced the scouts' ability to maintain better communications with the commander.

The matrix provides the following evaluations:

Table 2. Decision Matrix Ratings

	ROUTE	AREA	ZONE	CHEM	SCRN	CTR SNIPER	EXT PTRL
	RECONNAISSANCE						
TIMELINESS COMBAT / MOOTW	G / G	N / G	N / G	G / G	G / G	N / N	G / G
SURVIVABILITY COMBAT / MOOTW	N / M	N / M	N / M	N / G	G / G	N / N	N / G
ACCURACY COMBAT / MOOTW	G / G	N / G	N / G	G / G	N / G	N / N	N / N
SUSTAINMENT COMBAT / MOOTW	G / G	N / N	N / N	G / G	N / N	G / G	N / N

Criteria (overall rating)	Combat	MOOTW
Timeliness	Go	Go
Survivability	No-go	Marginal
Accuracy	No-go	Go
Sustainability	No-go	Marginal

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Survivability

The scout platoon is limited in its ability to survive on the current and future battlefields. In the MOOTW environment, they have demonstrated marginal success. Survivability encompasses the ability of self-defense. It is based on the capabilities of the vehicle, weaponry (organic and supporting), and combat skills of the scout. Yet the capability to survive on the battlefield proves to be a difficult task for the scout platoon to perform.

Combat

In the combat environment, scouts rely mainly upon stealth to maneuver and survive. The scouts are out-gunned by the reconnaissance and counter reconnaissance elements of all major regional threats (Soviet satellites, Iraq, Iran, North Korea). In addition to being unable to effectively engage enemy forces (during chance contacts), the absence of adequate surveillance sensors and sights greatly reduces the scouts' ability to identify threat targets in order to avoid contact. Day and night operations are equally effected.

Day

1. Maneuvers are difficult to conduct unobserved

2. Increase the chances of contact with enemy scouts and counter recon forces

3. Thermal capabilities would enhance target acquisition

Night

1. Observation is based on night vision technology of enemy forces and friendly scouts

2. Current scout platoon requires better night vision capabilities in order to maneuver effectively at night and avoid contact

3. Night maneuvers require increased dismount operations covered by mounted weapon and sensing systems (thermal sights)

4. Current capabilities are not adequate

5. Continuous dismount tasking quickly overwhelms the two dismounts per section

6. Current advancements and distributions of weapons and night vision technologies have increased the lethality of enemy scouts and counterreconnaissance elements during night operations

MOOTW

Survivability of the scouts during MOOTW missions is marginal based on the vehicle, training, and complacency. Most scout maneuver during MOOTW continues to be off-road. The HMMWV provides limited protection against most mines found in current MOOTW environments. The increase in sniper activity in MOOTW has added another threat to the mechanized scout.

Sniper activity has become an effective engagement means for opposition factions in MOOTW theaters. Current mechanized scouts are not trained to conduct counter sniper operations. The Scouts' mission is to conduct reconnaissance in support of task force operations. This requires the identification of all threats. Being able to identify this threat is essential but extremely dangerous for scouts of the current mechanized scout platoon.

Complacency is another dangerous factor for all units during MOOTW. Elements become predictable and lack the focus on security. This is dangerous for scouts because they operate in small units, separated from the main body. They effectively become targets for opposition elements (i.e., Kosovo incident). Complacency contributes to mistakes, which in turn contributes to causalities.

Survivability is heavily weighted as a criterion. Survivability directly influences all other criterion: the availability of accurate and timely information, and the ability to sustain continuous operations in combat and MOOTW environments.

Accuracy

Accuracy is dependent on sensing systems, manpower, reporting capabilities (communications and reporting SOPs), and scouting skills of the scout platoon.

Combat

Research shows the inability of scouts, under combat conditions, to provide accurate and detailed reporting. Major contributing factors were:

1. Lack of imaging devices

2. Dismount limitations decrease the ability of the scouts to infiltrate and establish depth behind the enemy FEBA

3. Insufficient dismount and reconnaissance training

4. Insufficient time to conduct thorough reconnaissance

MOOTW

During MOOTW, scouts have been shown to be more efficient in providing accurate information to the commander. More time and the ability for redundancy are major factors in the accuracy of scouts during MOOTW.

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1. Lack of imaging devises still decreases accuracy

2. Decrease threat level during MOOTW allows scout more freedom of maneuver to acquire accurate information

3. More time is allowed to reconnaissance and survey situation and establish redundancy of assets (HUMINT, SIGINT, and others)

Sustainment

Scouts must be able to maintain operational readiness that supports the task force. Task force intelligence requirements are continuous and with the scout platoon being the single organic intelligence collection assets, this requirement translates into a challenge for the task force and the scout platoon.

Combat

RAND and CTC research has shown that scouts have repeatedly demonstrated the inability to maintain an operational readiness rate above fifty percent for fifty percent of the task force missions evaluated. This is personnel driven. The current scout platoon is a thirty-man platoon expected to provide continuous coverage and support for the task force throughout the duration of the task force operation. This provides for several shortfalls:

Inability of the scouts to survive most chase contacts rendered most task force scouts combat ineffective during first mission. One chase contact can easily translate into a minimum of four dead scouts and one destroyed vehicle. Research has demonstrated that at least one section will be engaged in a chase contact during every mission. (Jonston).

1. Lack of trained replacements. Inability of task force to replace scout casualties with effective reconnaissance trained personnel. Most task forces replace scouts with infantry. However, this negates the combat power of the task force and risk the lives of infantry soldiers who are, in most cases, not properly trained to conduct reconnaissance.

2. Overtaking. Most task forces over task its scouts. This is due to improper training of the staff and leader, as well as improper planning. Additionally, the inability of the commander and staff to anticipate critical reconnaissance needs leads to the early tasking of scouts to support numerous non-recon related missions (traffic control points, convoy security, and others).

MOOTW

During MOOTW missions, the scouts are able to maintain an OR rate to support mission requirements. However, there are still shortfalls:

1. Lack of trained replacements. (Same as above). Task forces will continue to fill vacant positions with infantrymen.

2. Overtasking. (Same as above) Task forces continue to over task its scouts. The ability of the commander and staff to anticipate critical reconnaissance needs leads to the early tasking of scouts to support numerous non-recon related missions (traffic control points, convoy security, and others). This particularly common in MOOTW.

Table 3 illustrates the shortfalls of the current capabilities of the mechanized scout platoon that supports the mechanized task force.

Table 3. Mission Success

Mission success (as per criteria)	Combat	MOOTW
Route	Go	Go
Area	No-go	Marginal
Zone	No-go	Marginal
Chemical	Go	Go
Screen	Go	Go
Counter-sniper Surveillance	No-go	No-go
Extended patrols	No-go	No-go

Route

Scouts are equipped to successfully accomplish route reconnaissance in support of the task force. Conducting route reconnaissance is usually not as resource intensive as most of the other missions. Key to a successful route reconnaissance mission is time. In most cases the task force allows adequate time for the platoon to accomplish the mission.

Combat (Go)

1. Ten-vehicle configuration provides adequate maneuver elements to recon multiple routes.

2. Current ten-vehicle configuration allows for more flexibility during route reconnaissance mission.

3. Limited dismount capabilities decrease the platoons ability to conduct thorough and doctrinally correct reconnaissance in restrictive terrain (i.e., forest, large wadis).

4. Current vehicle has limited survivability against most threat mines (anti-armor and anti-personnel).

5. Time is limited during most combat missions.

MOOTW: (Go)

1. Reduced threat level contributes to better success of mission Scouts are generally allowed more time.

2. Current vehicle has limited survivability against most threat mines (anti-armor and anti-personnel), however the primary focus during a MOOTW route reconnaissance is traffic ability and mines.

3. Time is allotted for most route reconnaissance mission, thus allowing time to effectively use the limited dismounts.

Area

The major challenge for the scout platoon during area reconnaissance is gaining thorough coverage of the assigned area. Limited dismounts greatly decrease the platoon's ability to conduct reconnaissance in the MOUT environment. This limitation effects the platoon's performance during combat and MOOTW.

Combat: (No-go)

1. Improper training for mounted and dismounted elements on infiltration techniques.

2. Inadequate weapon systems to defend against threat counterreconnaissance forces.

3. Limited dismounts decrease the ability of the platoon to gain critical intelligence that requires close in reconnaissance (200 meters or less). Such reconnaissance is conducted during limited visibility period or in close terrain (i.e., towns, forest, jungles, desert wadi). The MOUT environment is readily overlooked during the training phases of mechanized scouts.

MOOTW: (Marginal)

1. Reduced threat allows for faster movement (quicker coverage of area).

2. Limited dismounts restrict ability of platoon to conduct timely and effective reconnaissance operations in MOUT environment.

Zone

Combat: (No-go)

1. Inadequate weapon systems to defend against threat counter reconnaissance forces.

2. Limited dismounts decrease the ability of the platoon to gain critical intelligence that requires close in reconnaissance (200 meters or less). Such reconnaissance is conducted during limited visibility period or in close terrain (i.e., towns, forest, jungles, desert wadi).

MOOTW: (Marginal)

1. Reduced threat allows for faster movement (quicker coverage of area).

2. Limited equipment and personnel continues to limit capabilities to conduct timely and effective reconnaissance

Chemical

Combat: (Go)

1. Scouts have proven to be capable of conducting chemical reconnaissance in support of task force operations.

2. Limited tasking; most chemical reconnaissance missions are conducted during reconnaissance of task force assembly areas prior to quartering party operations.

3. Additional assets (i.e., Fox chemical reconnaissance vehicles) are assigned to scouts, in most cases, during chemical reconnaissance missions.

4. Vehicle does not contain an over pressure system. Proper training, planning and use of protection and decontamination equipment ensures scout survivability in a chemical environment.

MOOTW: (Go)

1. Limited tasking; limited chemical threat in the MOOTW environment.

2. Current assigned chemical detection and protection equipment is adequate.

3. Additional assets (i.e., Fox chemical reconnaissance vehicles) are assigned to scouts, in most cases, during chemical reconnaissance missions.

4. Vehicle does not contain an over pressure system. Proper training, planning and use of protection and decontamination equipment ensures scout survivability in a chemical environment.

Screen

Combat: (Go)

Mounted screen in support of offensive operations

Based on doctrinal area coverage and mission definitions the current organization of ten vehicles and thirty personnel is adequate to perform a screen mission in support of a mechanized task force for up to seventy-two continuous hours.

Continuous operations beyond the seventy-two-hour mark will then challenge the effectiveness of the scout platoon, based on sleep deprivation and equipment maintenance due to continuous movement during offensive operations.

Defensive screen

1. Platoon is capable of establishing OPs in support counter reconnaissance operations.

2. Size of platoon allows for redundant coverage of observed areas.

3. Number of assigned personnel limits the platoon's capability to sustain continuous operations for the duration of the mission (greater than seventy-two hours).

Effective rotation of personnel and use of sleep plans throughout the missions extends the platoons capacity to sustain operations in limited cases, some task force rotate the scouts with infantry platoons during day time mission. This is an effective method if the infantry platoons are trained on reconnaissance and surveillance task and familiarized with the operations forward of the FLOT.

MOOTW: (Go)

1. Platoon is capable of establishing OPs in support counter reconnaissance operations.

2. Size of platoon allows for redundant coverage of observed areas.

3. Number of assigned personnel limits the platoon's capability to sustain continuous operations for the duration of the mission. Effective rotation of personnel and use of sleep plans throughout the missions extends the platoons capacity to sustain operations.

4. In limited cases, some task force rotate the scouts with infantry platoons during day time mission.

Countersniper surveillance

Snipers are an increasing threat across both the combat and MOOTW environments. Snipers are a growing part of the asymmetric threat that faces U.S. forces deployed throughout the world. Generally not a focus of battalion or platoon training strategy, counter sniper operations are critical. Most task forces and their scouts are inadequately trained to deal with multiple sniper threats.

Combat: (No-go)

1. Lack of training; generally not a focus of battalion or platoon training strategy.

2. Mechanized snipers are assigned to line companies.

3. In most cases there is limited, if no, cross training between sniper teams and scouts.

MOOTW: (No-go)

1. Lack of training; limited experience within the platoon.

2. Mechanized snipers are assigned to line companies.

3. In most cases there is limited, if no, cross training between sniper teams and scouts.

<u>Extended patrols</u>

Scouts, at one hundred percent can produce a two-man dismount team per section. This not only jeopardizes security for the mounted elements but also limits the ability of the dismount element to maintain its security and conduct sustained continuous operations. In most cases, the scouts are given additional dismounts during deployment phases (combat or MOOTW). This process is generally an afterthought that risks the lives of both untrained personnel and the scouts.

Extended operations in a mechanized environment require the scouts to continuously conduct various types of reconnaissance and security missions. As found during Desert Storm, the continuous movement required that crews (drivers or gunners) be rotated out. This rotation required dismounts to fill in as drivers and gunners, thus limiting the dismount capability of the organization.

<u>Combat: (No-go)</u>

1. Limited personnel (mounted and dismounted) restricts the platoon's ability to conduct and sustain extended patrols.

2. Improper training.

3. Most scout platoons are improperly or not trained to conduct and maintain extended patrols in support of task force operations.

4. Limited weapon system to defend against threat.

<u>MOOTW: (No-go)</u>

1. Reduction of threat does not counter the lack of personnel.

2. Limited personnel (mounted and dismounted) restricts the platoon's ability to conduct and sustain extended patrols.

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3. Improper training.

The research conducted for this paper has identified shortfalls in the current mechanized scout organization. Current mechanized scout platoons are unable to adequately accomplish most of their combat missions and achieve success in accordance with established criteria. However, in the MOOTW environment, scouts have experienced more success in meeting reconnaissance criteria and accomplishing assigned missions. The shortfalls can be corrected and overcome within the current force structure. Past research, conducted by RAND Corporation and personnel at the CTCs, has identified that there are problems with reconnaissance at battalion level. To date, the problems have not been solved.

CHAPTER 5

CONCLUSION

Introduction

The U.S. Army has evolved into a force responsible for conducting combat operations and military operations other than war throughout the world. The environments in which the current mechanized forces operate have increased in complexity and lethality.

Reorganization of the current mechanized battalion scout platoon is essential to maintain pace with the changing environment and increased responsibility. The current mechanized scout platoon organization and equipment must evolve to meet the new challenges of future battlefields and MOOTW missions.

Future operations will consist of brigade and battalion size missions to support multinational forces or perform missions in support of U.S. strategy. Deploying a mechanized battalion without adequate reconnaissance capability would be a mistake.

It is essential that the Army reorganize the mechanized battalion scout platoons. Despite reconnaissance gathering assets available to the commander and his staff, the effectiveness of the scout platoon is critical to the success of the battalion in all environments. The reorganization of the current scout platoon requires adjustments to the TO&E. The adjustments increase the effectiveness of the scout platoon and therefore proportionally increase the success rate of the mechanized battalions on the battlefield and in the MOOTW and peacekeeping environment.

Findings

The scout platoon is not properly organized or equipped to carry out effective reconnaissance for the mechanized battalion. Current organization inhibits the scout platoon's ability to effectively accomplish all of the missions required to provide the commander an effective intelligence picture of the battlefield.

Recommendation

Vehicle: The current vehicle, HMMWV series, does not fully meet the tactical and technical requirements for effective reconnaissance during combat operations.

Requirements for scout vehicles:

Mobility:

Speed and mobility

The vehicle must be highly mobile on and off the road. A primary focus for the scout vehicle is off road mobility. The vehicle must be able to ford streams and small rivers within its AO. The vehicle should have amphibious capabilities to allow it to maintain freedom of maneuver in all environments.

Protection:

1. The vehicle must have a low profile with limited noise.

2. Dirty battlefield effects: The current HMMWV (up armored) does not provide adequate protection against unexploded ordinance and mines (antipersonnel and antiarmor).

3. Armament against small and medium caliber weapons. This includes light and medium antiarmor weapons.

Communications:

Upgrade the task organization to include one communications vehicle equipped with a minimum of two radios and required communications gear to establish retrans and direct feeds to battalion. This vehicle should also be equipped with directional finding capabilities to assist scouts in identifying enemy reconnaissance forces as well as command and control nodes.

Weapons systems:

Armaments available on the HMMWV configuration provide for effective self defense against dismounted infantry and light skinned vehicles (i.e., BRDM, BMP-1/2). Even though, the MK-19 and M-2 provide effective short-range engagement weapons for the scout platoons, these weapon systems do not possess the stand off capabilities of many enemy reconnaissance vehicles.

A gun-stabilization system should be incorporated to increase the accuracy and effectiveness of the weapon. It will enhance the stability of the weapon system during the movement, allowing the scouts to break contact more effectively.

Anti-armor capability:

Scouts require an antiarmor capability in order to overwatch the maneuver of its elements. A minimum of one vehicle per section must be equipped with anti-armor capability, in addition to M-2 or Light Machine Gun weapon system for self-defense. Ideally, the anti-armor system is a "fire and forget" (i.e., Javelin technology) system that will eliminate tracking time and reduce exposure time of the scout.

Contact with larger enemy elements is always possible for scout elements, especially during offensive operations (movement to contacts and deliberate attacks). It

is essential that each scout section is capable of massing effective fires (indirect and direct fires), which can establish a momentary suppressive affect on any section size element (armor or infantry).

There are numerous vehicles currently fielded that would be effective scout platoon vehicles. Currently, research is in process to develop a new scout vehicle. The scout platoon is undermanned to accomplish all assigned missions, sustain continuous operations, and maintain an effective operational readiness rate. The current scout platoon manning is 1 X officer and 29 X enlisted personnel.

Recommendation

A manning of forty personnel (1 X Officer and 39 X Enlisted) is required:

1. To conduct continuous operations (73+ hours of operations).

2. To conduct effective simultaneous dismounted and mounted operations.

3. The increase allows for a four-man dismount element per section.

4. To provide effective internal security during dismounted and mounted patrolling.

5. To provide sufficient personnel to rotate vehicle crew members without completely.

6. Degrading the dismount capabilities of the scout platoon.

7. The incorporation of off the shelf and evolving military technologies can enhance the effectiveness of the scout platoon reconnaissance and information gathering.

Recommendation

Thermal Imaging Devices--observation devices that provide thermal imaging (LRAS3, TOW and Javelin sights, long range surveillance camera technology)--are key

to success of the scouting mission. The ability to identify the enemy first contributes to the survival and capabilities of the scout platoon. Thermal imaging sights are available on TOW sight systems that can be mounted and powered on any military recon vehicle in stock today. A limitation to this system is the inability to effectively use the TOW Thermal system while moving. They enable the scout to identify potential enemy positions and forces at distances out to four kilometers. Emerging thermal imaging technologies (LRAS3) provide systems that can identify enemy elements out to ten kilometers.

Dismounted Thermal Sensing Technologies. These technologies are being developed for the Land Warrior program. It is important that the fielding of the rifle mounted thermal devices also include the scouts. Many view the Land Warrior technologies as "shooter" oriented. The technologies being developed to enhance the infantry warrior's ability to acquire targets and fight are also ideal for most of the scout applications.

Effective deployment and utilization of additional support assets enhance the abilities of the scout platoon, increase the platoon's survivability, and provide a thorough picture of the battlefield for the commander and his staff. This study proves that there are numerous assets available to develop a near real-time picture of the operational environment. These assets must be coordinated and synchronized during the planning phase and monitored throughout the execution phase.

Recommendation

Continue training staff personnel and commanders on all systems which can bring information or intelligence gathering assets to bear on the reconnaissance and

surveillance requirements of the battalion. Professional development of commanders and their staffs are essential. Training programs must emphasize habitual working relationships. Exercises and simulations must provide an environment that fosters habitual working relationship prior to deployment to a combat training center or real world mission.

Conclusion

The assets available to current mechanized scout platoon are inadequate for combat operations. The current mechanized scout platoon is able to meet its mission requirements in the MOOTW environment. Most research for improvement of the scout platoons support heavy mechanized and armor forces has been focused primarily on developing an adequate vehicle. This has only solved a minor portion of the problem.

Reconnaissance is critical, and will continue to be critical to the success of U.S. forces operating in combat and MOOTW environments. With the increases in technology that provide the force with information dominance of the operational environment and situation awareness, the scout platoon is an essential part of the information and intelligence system. It is the commander's eyes on the battlefield. Scouts can maintain contact with the enemy, provide real time intelligence, and maintain the pace and flexibility necessary for success. It is essential that the scout platoon is properly equipment, manned, and trained to meet its mission requirements. Until the focus of research and development is aimed at the true deficiencies, the success of the mechanized scout platoon and mechanized forces will be in jeopardy on future battlefields.

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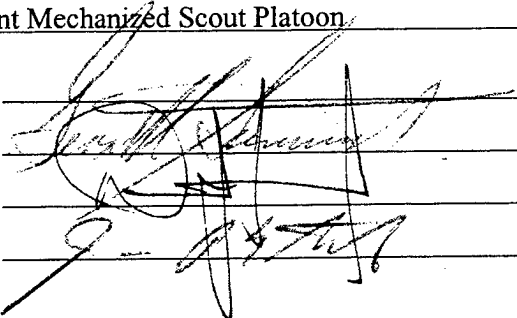
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